

# 2009-10 Influenza Epidemiology and Surveillance Weekly Status Report for Kansas

Week Ending December 19, 2009

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### **Executive Summary**

### D. Charles Hunt, MPH, State Epidemiologist and Director Bureau of Surveillance and Epidemiology Kansas Department of Health and Environment

#### Overview

Most influenza activity indicators decreased or remained constant during the week ending December 19<sup>th</sup> compared to the previous week, signaling the 7<sup>th</sup> consecutive week of declining activity. However, it is important to remember that the 2009 H1N1 influenza A virus is still circulating and remains the primary influenza virus in Kansas and throughout the United States.

Significant regional variations of influenza activity exist. The southeast region had the highest percentage of outpatient visits for influenza-like illness (9.4%), and percentage of elementary and middle schools reporting 10% or greater absenteeism (29% and 27% respectively). The rate of hospitalizations for pneumonia or influenza per 100 bed days also increased slightly in the southeast region over the previous week. Activity in the southeast region will continue to be monitored closely given the increase in indicators. The northeast region reported the lowest hospital admissions per 100 bed-days (0.19) and had no high schools reporting 10% or greater absenteeism.

#### Outpatient Visits for Influenza-like Illness (ILINet)

Forty-two (59%) of the 71 ILINet Sites in Kansas reported ILI data for the week ending December 19<sup>th</sup>. There has been a slight increase in the statewide percentage of ILI visits to outpatient clinics from 1.4% for the week ending December 12<sup>th</sup> to 1.8% for the week ending December 19<sup>th</sup>. Nationally, the rate of ILI visits at outpatient clinics was 2.8% for the week ending December 12<sup>th</sup>; although this is still above the national baseline of 2.3%, it was the 6<sup>th</sup> straight week of decline.

The percentage of ILI visits reported varied regionally. The highest percentage was reported in the southeast region (9.4%) with four of the seven ILINet sites reporting data. The southcentral region reported the lowest percentage (0.7%) with five out of the seven ILI sites reporting data. Within the last four weeks, from the weeks ending November 28<sup>th</sup> through December 19<sup>th</sup>, the northwest region has consistently had the highest percentage of ILI visits (range 4.7% - 5.4%). It should be noted that 29 (41%) of the 71 sites did not report by the deadline; therefore the rates could change based on more complete data.

#### **Hospital Admissions for Pneumonia or Influenza (EMSystems)**

For the week ending December 19<sup>th</sup>, 93 (70%) of the 132 hospitals reported 251 patients admitted for pneumonia or influenza. The statewide rate of hospital admissions per 100 bed-days decreased to 0.45. As with other surveillance systems, regional variations exist. The south central region reported the highest rate at 0.69 while the northeast region reported the lowest rate at 0.19. Thirty-nine (30%) of the hospitals did not report by the deadline; therefore the rates could change as more hospitals report data.

#### **Hospital Situational Awareness**

On Wednesday, December 16<sup>th</sup>, 96 (73%) of the 131 hospitals reported situational awareness information through EMSystems. None of the hospitals reported an increased demand for patient care services.

#### Mortality Due to Pneumonia or Influenza

Thirty-five (7.7%) of the 452 deaths reported to KDHE during the week ending December 19<sup>th</sup> were due to pneumonia or influenza. This is a decrease from the previous week ending December 12<sup>th</sup> of 9.5%. The largest number of deaths, 372 (86%) of 434, continues to be attributed to persons 65 years and older. Since September 26<sup>th</sup>, no deaths have been reported in persons less than 25 years of age. The percent of all deaths due to pneumonia or influenza in the U.S. as a whole was 7.8% the week ending December 12<sup>th</sup>, which was the 10<sup>th</sup> consecutive week above the epidemic threshold.

### **Executive Summary (continued)**

#### Self-reported Influenza-like Illness

New data for interviews conducted from December 1-15 are included in this week's report. The percentage of adults interviewed between December 1-15 and reported ILI in the previous two weeks increased from 2.5% to 3.4%. The percentage of adults reporting ILI in the previous 4 weeks increased, from 6.3% 8.8% but decreased in children from 32.5% to 26.0%. The percentage of households with at least one person experiencing ILI in the previous 4 weeks decreased from 28.8% to 23.3% for those interviewed between December 1-15.

#### **School Absenteeism**

For the week ending December 19<sup>th</sup>, 83 (79%) of the 105 Kansas counties reported the percentage of schools reporting 10% or greater absenteeism by the reporting deadline. The statewide percentage for elementary schools and middle schools decreased to 5% and 6% respectively. The statewide percentage for high schools decreased slightly from 8% to 7%.

The percentage of schools reporting 10% or greater absenteeism varied by region. The southeast region had the highest percentage of elementary schools and middle schools reporting 10% or greater absenteeism (29% and 27% respectively). The northeast region and Kansas City Metro region had no high schools reporting 10% or greater absenteeism.

#### **Laboratory-based Surveillance**

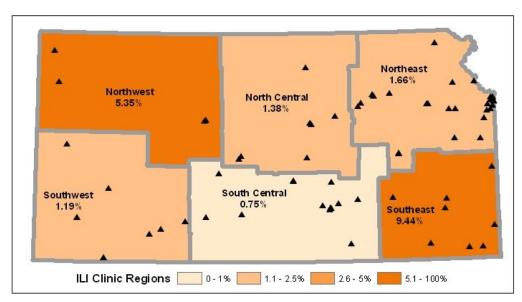
The percentage of submitted specimens that tested positive for influenza A (2009 H1N1) decreased to 5.6%. During the week ending December 19<sup>th</sup>, 72 specimens were tested at KHEL. Of these, 4 were positive for influenza A (2009 H1N1).

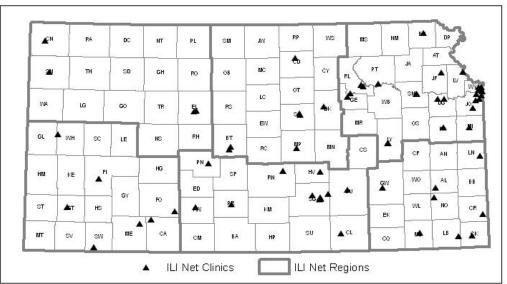
Since October 10<sup>th</sup>, a total of 1977 specimens have been submitted to KDHE Laboratories (KHEL) for testing. Of these, 864 (44%) have tested positive for influenza A (2009 H1N1).



Percentage of Visits for Influenza-like Illness (ILI) Reported by ILINet Sites, by Region December 13 - December 19, 2009



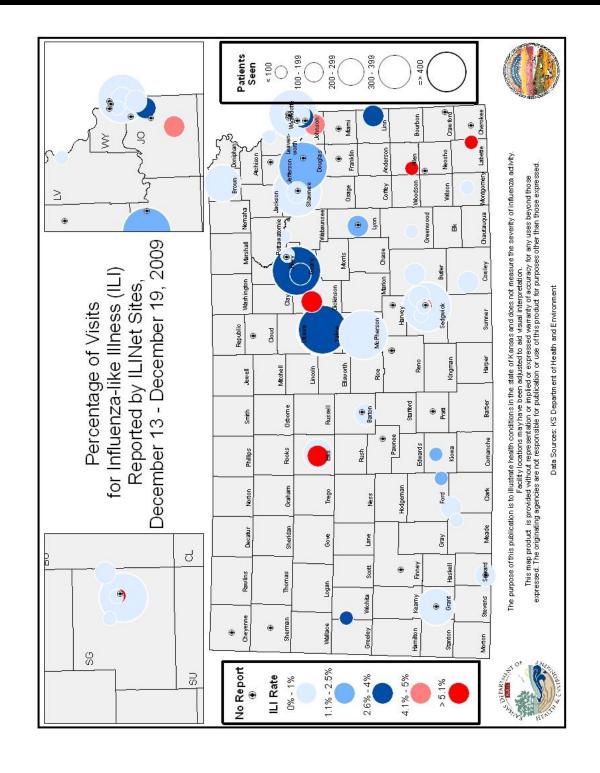


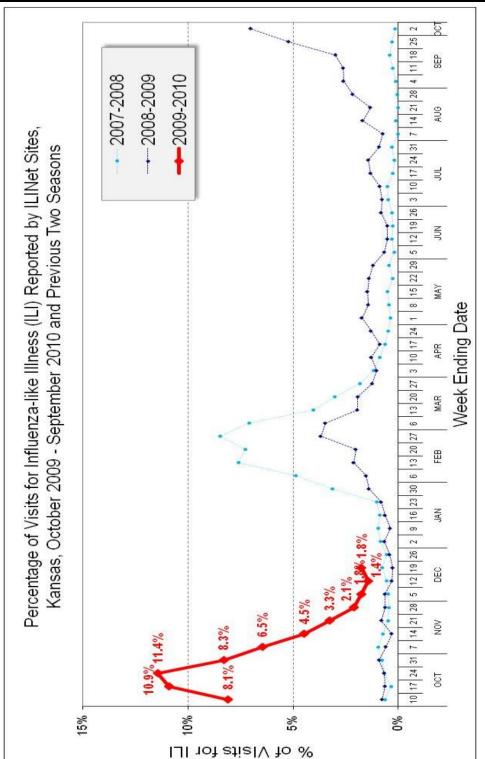


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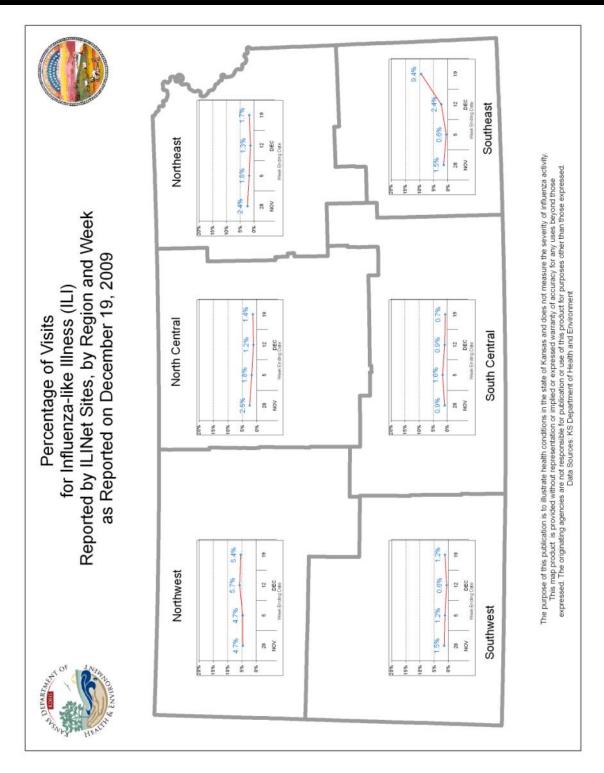
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Data Sources: KS Department of Health and Environment





was unique to the 2008-2009 season; data for that week has been excluded from the chart. ILINet sites vary in location, numtober 10, 2009. Week 40 of 2008 ended October 4, 2008, and week 40 of 2007 ended October 6, 2007, and so on. Week 53 lears are plotted according to week number corresponding to the 2009-2010 week ending date. Week 40 of 2009 ended Ocber, and type (student health, family practice, etc.) each season as new sites are enrolled and former sites are deactivated. The X-axis represents the week ending dates for the 2009-2010 surveillance year. Data from the previous two surveillance

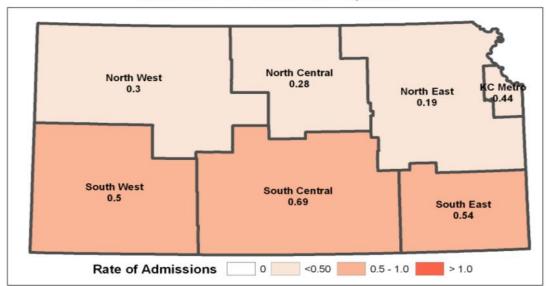


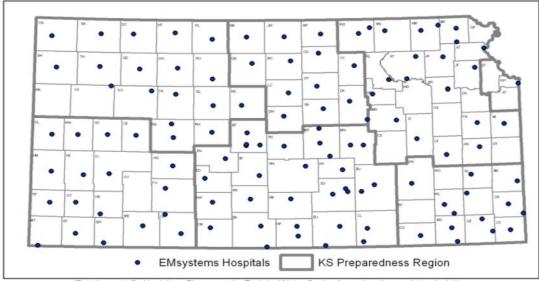
# Hospital Admissions (Surveillance Conducted via EMSystems) Week ending December 19, 2009



Rate of Hospitalizations due to Pneumonia or Influenza per 100 Bed-Days\* by Preparedness Region, December 13 - December 19, 2009





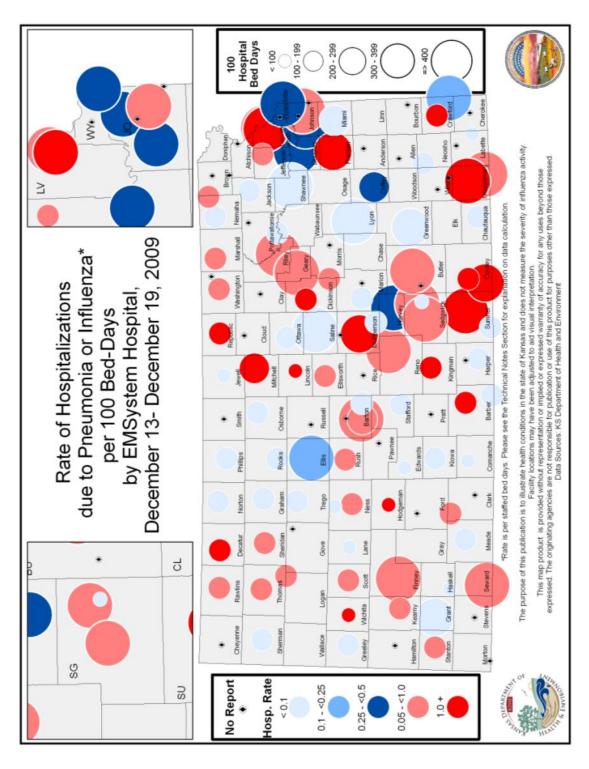


\*Rate is per staffed bed days. Please see the Technical Notes Section for explanation on data calculation

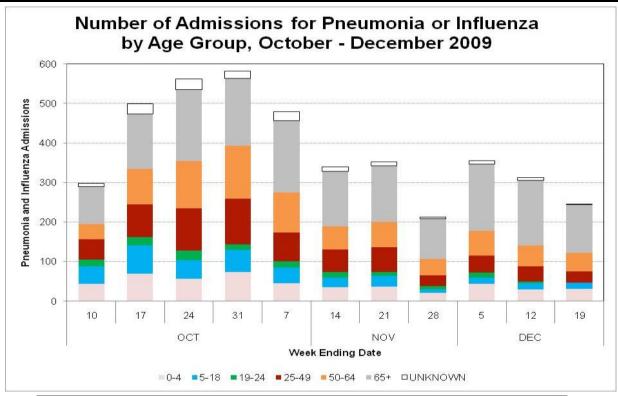
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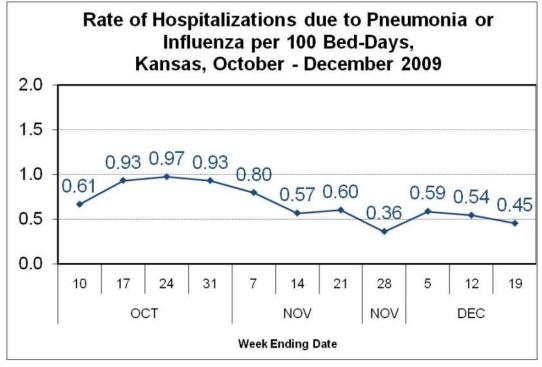
Data Sources: KS Department of Health and Environment

# Hospital Admissions (Surveillance Conducted via EMSystems) Week ending December 19, 2009

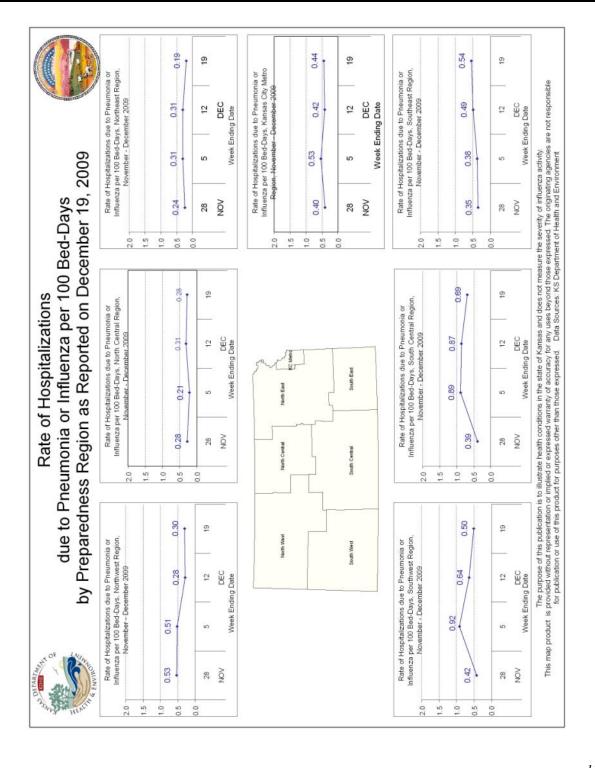


### Hospital Admissions (Surveillance Conducted via EMSystems) Week ending December 19, 2009

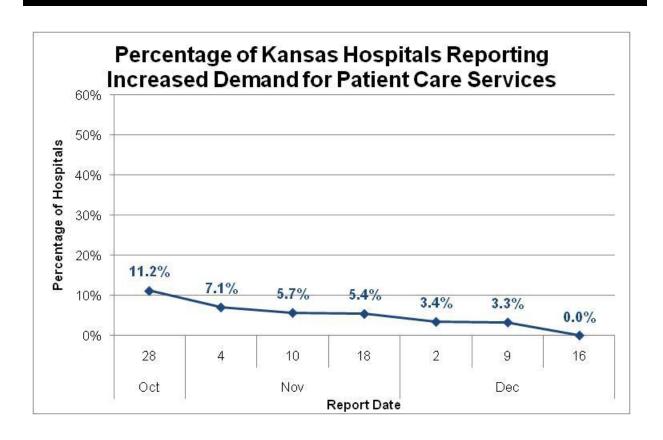




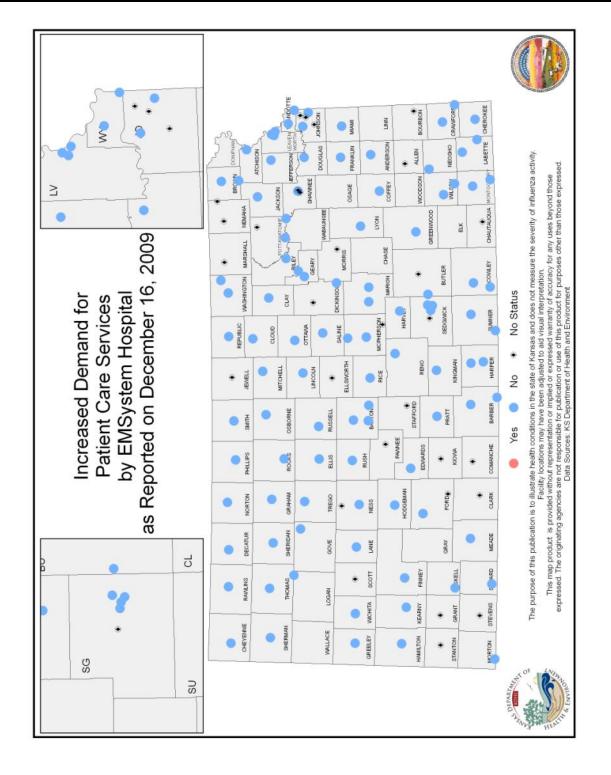
# Hospital Admissions (Surveillance Conducted via EMSystems) Week ending December 19, 2009



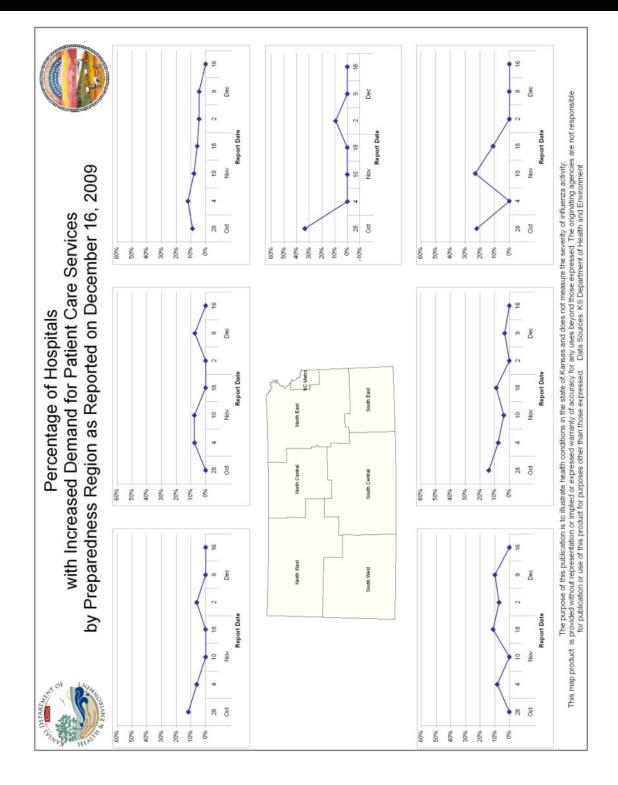
### Hospital Situational Awareness (Surveillance Conducted via EMSystems)



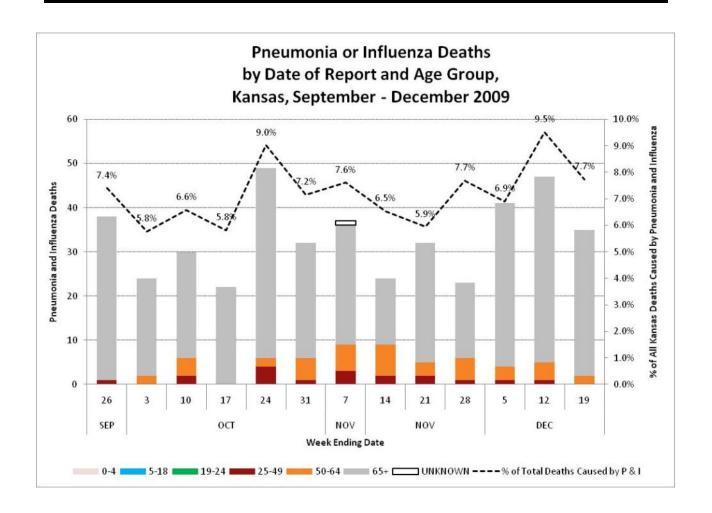
### Hospital Situational Awareness (Surveillance Conducted via EMSystems)



### Hospital Situational Awareness (Surveillance Conducted via EMSystems)



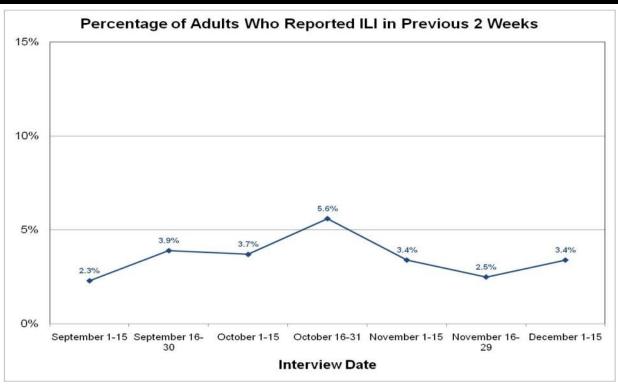
### Mortality Due to Pneumonia or Influenza (Surveillance Conducted via KDHE Vital Statistics)

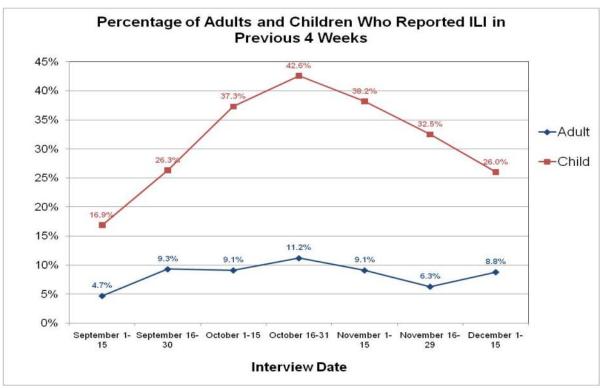


### Cumulative Number of Pneumonia or Influenza Deaths Reported by Age Group, September 26—December 19, 2009

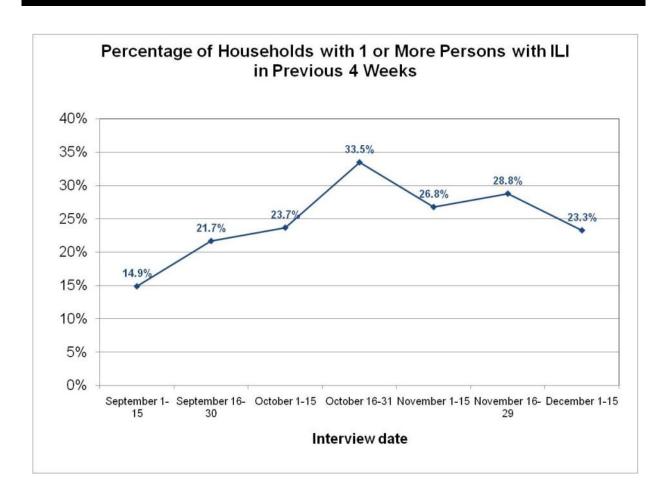
| 0-4 | 5-18 | 19-24 | 25-49 | 50-64 | 65+ | Unknown | Total |
|-----|------|-------|-------|-------|-----|---------|-------|
| 0   | 0    | 0     | 18    | 43    | 372 | 1       | 434   |

### Self-Reported Influenza-like Illness (Surveillance Conducted via KDHE BRFSS)





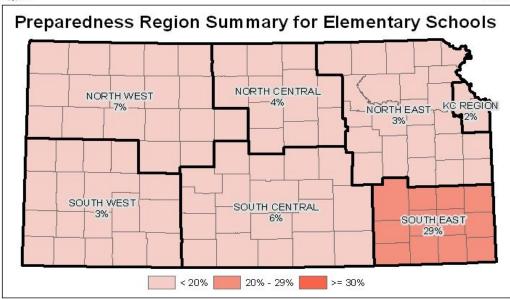
### Self-Reported Influenza-like Illness (Surveillance Conducted via BRFSS)

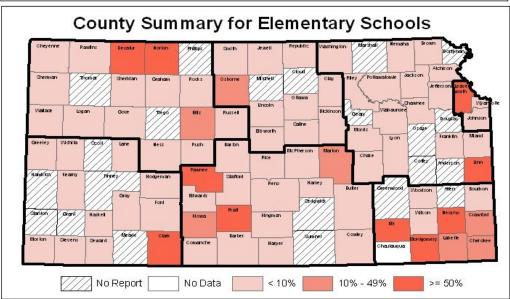




Percentage of Schools Reporting 10% or Greater Absenteeism December 14 - December 18, 2009







The purpose of this publication is to illustrate health conditions in the state of Kansas and does not measure the severity of influenza activity.

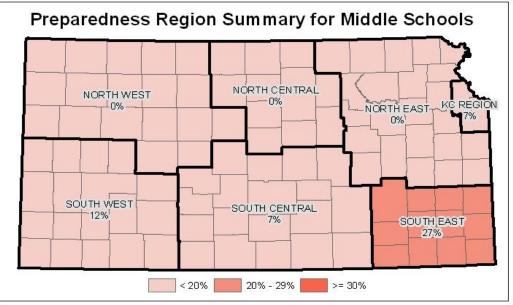
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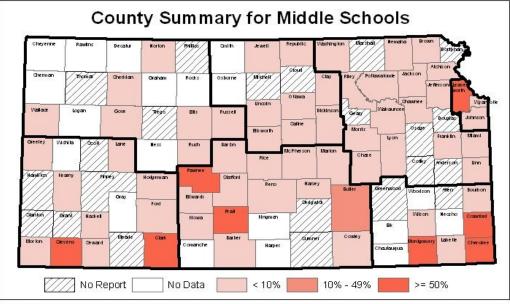
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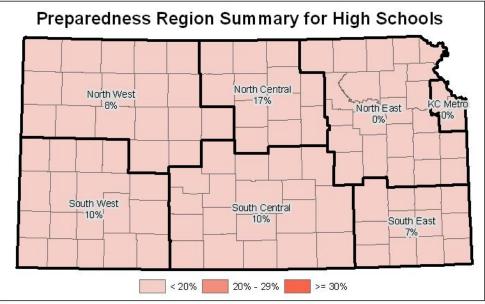
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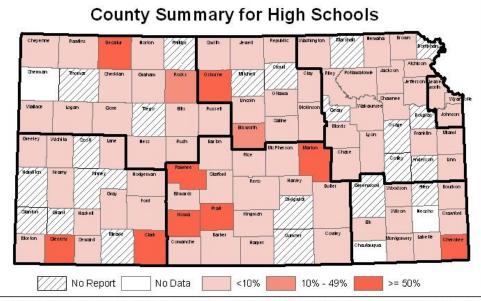
Data Sources: KS Department of Health and Environment



Percentage of Schools Reporting 10% or Greater Absenteeism December 14 - December 18, 2009



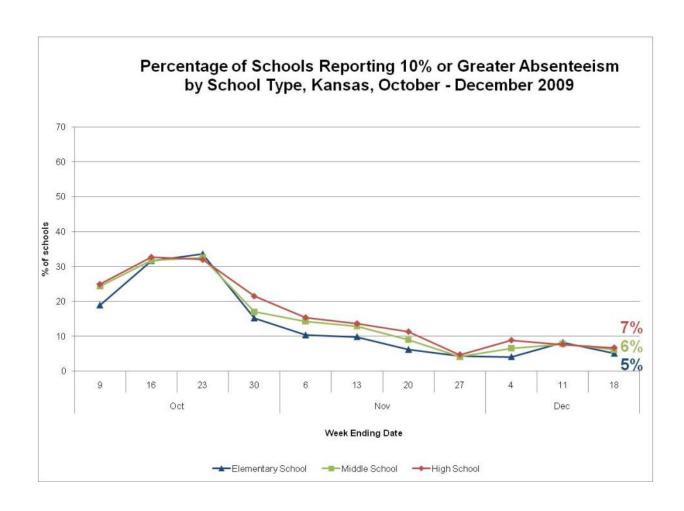


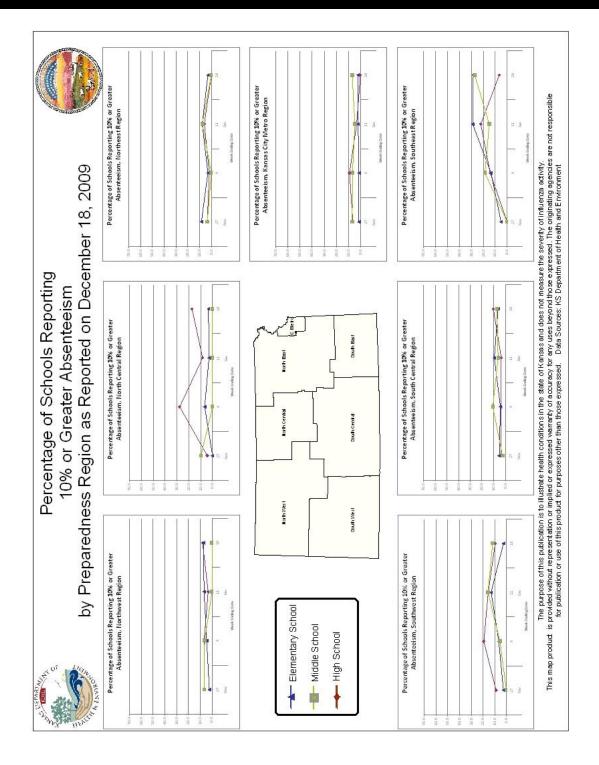


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Data Sources: KS Department of Health and Environment





# Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending December 18, 2009

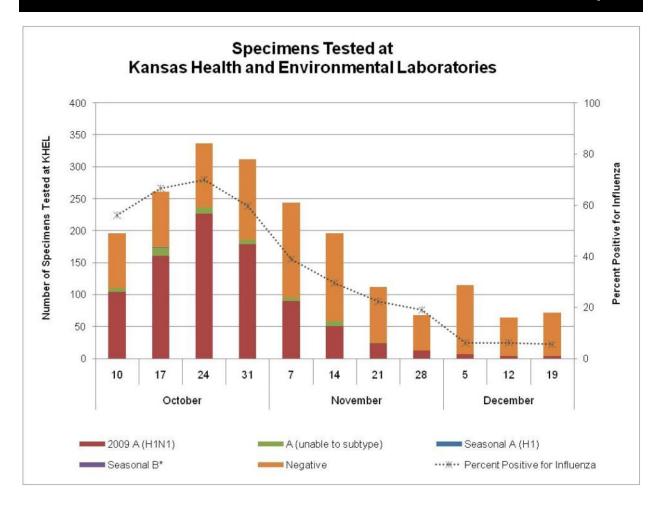
| County     | Elementary<br>School | Middle<br>School | High<br>School |
|------------|----------------------|------------------|----------------|
| ALLEN      |                      |                  |                |
| ANDERSON   |                      |                  |                |
| ATCHISON   | 0%                   | 0%               | 0%             |
| BARBER     | 0%                   | 0%               | 0%             |
| BARTON     | 0%                   | 0%               | 0%             |
| BOURBON    | 0%                   | 0%               | 0%             |
| BROWN      | 0%                   | 0%               | 0%             |
| BUTLER     | 0%                   | 11%              | 0%             |
| CHASE      | 0%                   | 0%               | 0%             |
| CHAUTAUQUA |                      |                  |                |
| CHEROKEE   | 33%                  | 100%             | 100%           |
| CHEYENNE   | 0%                   |                  | 0%             |
| CLARK      | 50%                  | 50%              | 50%            |
| CLAY       | 0%                   | 0%               | 0%             |
| CLOUD      |                      |                  |                |
| COFFEY     |                      |                  |                |
| COMANCHE   | 0%                   |                  | 0%             |
| COWLEY     | 0%                   | 0%               | 0%             |
| CRAWFORD   | 25%                  | 100%             | 0%             |
| DECATUR    | 100%                 |                  | 100%           |
| DICKINSON  | 0%                   | 0%               | 0%             |
| DONIPHAN   |                      |                  |                |
| DOUGLAS    |                      |                  |                |
| EDWARDS    | 0%                   | 0%               | 0%             |
| ELK        | 50%                  |                  | 0%             |
| ELLIS      | 10%                  | 0%               | 0%             |
| ELLSWORTH  | 0%                   | 0%               | 33%            |
| FINNEY     |                      |                  |                |
| FORD       | 0%                   | 0%               | 0%             |
| FRANKLIN   | 0%                   | 0%               | 0%             |
| GEARY      |                      |                  |                |
| GOVE       | 0%                   | 0%               | 0%             |
| GRAHAM     | 0%                   |                  | 0%             |
| GRANT      |                      |                  |                |
| GRAY       | 0%                   |                  | 0%             |

| County           | Elementary<br>School | Middle<br>School | High<br>Schoo |
|------------------|----------------------|------------------|---------------|
| GREELEY          | 0%                   | 0%               | 0%            |
| GREENWOOD        |                      |                  |               |
| HAMILTON         |                      |                  |               |
| HARPER           | 0%                   |                  | 0%            |
| HARVEY           | 0%                   | 0%               | 0%            |
| HASKELL          | 0%                   | 0%               | 0%            |
| HODGEMAN         | 0%                   | 0%               | 0%            |
| JACKSON          | 0%                   | 0%               | 0%            |
| <b>JEFFERSON</b> | 0%                   | 0%               | 0%            |
| <b>JEWELL</b>    | 0%                   | 0%               | 0%            |
| JOHNSON          | 0%                   | 0%               | 0%            |
| KEARNY           | 0%                   | 0%               | 0%            |
| KINGMAN          | 0%                   |                  | 0%            |
| KIOWA            | 33%                  | 0%               | 50%           |
| LABETTE          | 14%                  | 0%               | 0%            |
| LANE             | 0%                   | 0%               | 0%            |
| LEAVENWORTH      | 60%                  | 75%              | 0%            |
| LINCOLN          | 0%                   | 0%               | 0%            |
| LINN             | 75%                  | 0%               | 0%            |
| LOGAN            | 0%                   |                  | 0%            |
| LYON             | 0%                   | 0%               | 0%            |
| MARION           | 25%                  | 0%               | 67%           |
| MARSHALL         |                      |                  |               |
| MCPHERSON        | 0%                   | 0%               | 0%            |
| MEADE            |                      |                  |               |
| MIAMI            | 0%                   | 0%               | 0%            |
| MITCHELL         |                      |                  |               |
| MONTGOMERY       | 50%                  | 50%              | 0%            |
| MORRIS           | 0%                   | 0%               | 0%            |
| MORTON           | 0%                   | 0%               | 0%            |
| NEMAHA           | 0%                   | 0%               | 0%            |
| NEOSHO           | 100%                 |                  |               |
| NESS             | 0%                   |                  | 0%            |
| NORTON           | 50%                  | 0%               | 0%            |
| OSAGE            |                      |                  |               |

# Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending December 18, 2009

| County       | Elementary<br>School | Middle<br>School | High<br>School |
|--------------|----------------------|------------------|----------------|
| OSBORNE      | 33%                  |                  | 100%           |
| OTTAWA       | 0%                   | 0%               | 0%             |
| PAWNEE       | 75%                  | 100%             | 100%           |
| PHILLIPS     |                      |                  |                |
| POTTAWATOMIE | 0%                   | 0%               | 0%             |
| PRATT        | 100%                 | 50%              | 50%            |
| RAWLINS      | 0%                   |                  | 0%             |
| RENO         | 0%                   | 0%               | 0%             |
| REPUBLIC     | 0%                   | 0%               | 0%             |
| RICE         | 0%                   | 0%               | 0%             |
| RILEY        | 0%                   | 0%               | 0%             |
| ROOKS        | 0%                   |                  | 33%            |
| RUSH         | 0%                   | 0%               | 0%             |
| RUSSELL      | 0%                   | 0%               | 0%             |
| SALINE       | 0%                   | 0%               | 0%             |
| SCOTT        |                      |                  |                |
| SEDGWICK     |                      |                  |                |
| SEWARD       | 0%                   | 0%               | 0%             |
| SHAWNEE      | 0%                   | 0%               | 0%             |
| SHERIDAN     | 0%                   | 0%               | 0%             |
| SHERMAN      | 0%                   |                  |                |
| SMITH        | 0%                   |                  | 0%             |
| STAFFORD     | 0%                   | 0%               | 0%             |
| STANTON      |                      |                  |                |
| STEVENS      | 0%                   | 100%             | 50%            |
| SUMNER       |                      |                  |                |
| THOMAS       |                      |                  |                |
| TREGO        |                      |                  |                |
| WABAUNSEE    | 0%                   | 0%               | 0%             |
| WALLACE      | 0%                   | 0%               | 0%             |
| WASHINGTON   | 0%                   | 0%               | 0%             |
| WICHITA      | 0%                   |                  | 0%             |
| WILSON       | 0%                   | 0%               | 0%             |
| WOODSON      | 0%                   |                  | 0%             |
| WYANDOTTE    | 0%                   | 0%               | 0%             |

## Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)



### Kansas Department of Health and Environmental Laboratories

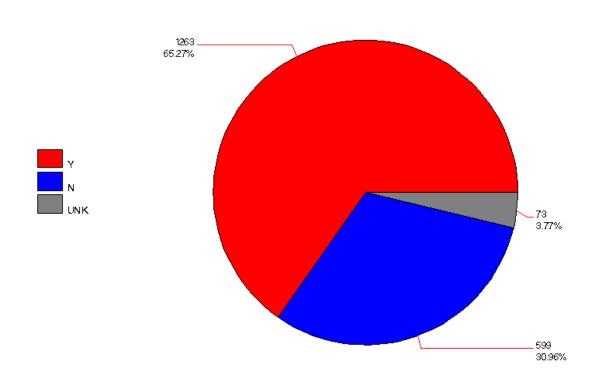
No. of specimens submitted for testing at KHEL 1977

No. of specimens testing positive for influenza A (2009 H1N1) 864 (44%)

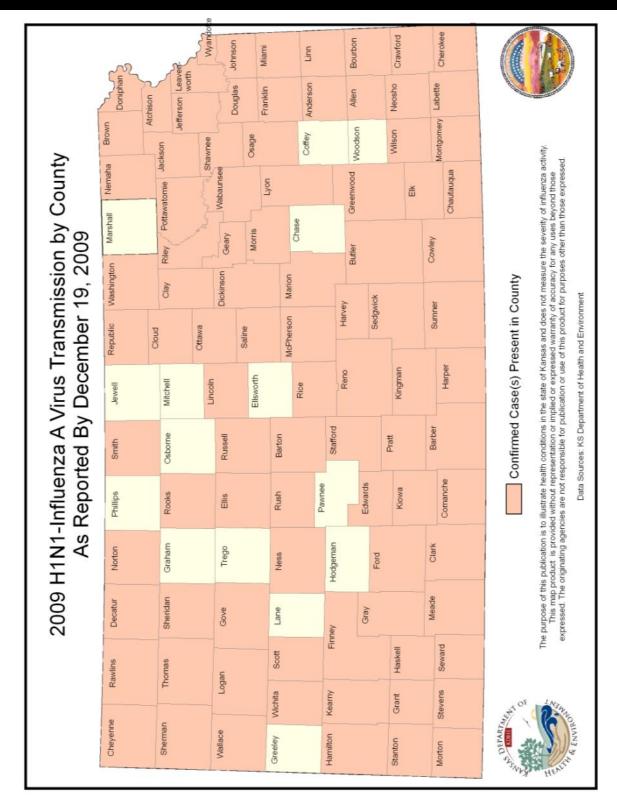
## Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)

### Influenza Specimens Tested at KHEL by Hospitalization Status

October 4, 2009 - December 19, 2009
FREQUENCY of Hospitalized



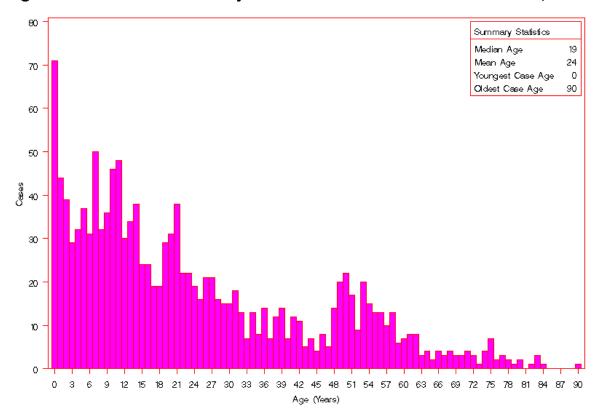
### Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases



### Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases

| aracteristics of Laboratory Confirmed Cases |          |  |
|---|----------|--|
| Median Age (Years)                          | 19.0     |  |
| Age Range (Years)                           | <1 to 90 |  |
| Percent (%) by Age Group:                   |          |  |
| <5 Years                                    | (16)     |  |
| 5 to 24 Years                               | (46)     |  |
| 25 to 49 Years                              | (22)     |  |
| 50 to 64 Years                              | (12)     |  |
| 65+ Years                                   | (4)      |  |
| Percent (%) Male                            | (54)     |  |
| Percent (%) Hispanic or Latino              | (18)     |  |
| Percent (%) by Race                         |          |  |
| White Only                                  | (73)     |  |
| Black Only                                  | (8)      |  |
| Other                                       | (5)      |  |
| Unknown                                     | (14)     |  |
| Percent (%) Died                            | (2)      |  |

### Age Distribution of Laboratory Confirmed Cases as of December 19, 2009



### **Technical Notes**

#### Outpatient Influenza-like Illness Surveillance (ILINet)

Information on patient visits to health care providers for influenza-like illness is collected through the US Outpatient Influenza-like Illness Surveillance Network (ILINet). For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza.

ILINet clinics in Kansas report the number of patients seen with influenza-like illness each week. The information reflects data collected for the week ending the previous Saturday. As of December 24, 2009, seventy-one sites are enrolled in ILINet in Kansas. The maps and charts on pages 6-9 show the percentage of ILI visits reported by region and by site by week ending date. Each percentage was calculated by dividing the number of patients seen with ILI at the clinic by the total number of patients seen and multiplying by 100.

Influenza-like illness data are collected from Sunday through Saturday of each week. Each participating clinic is requested to summarize the data weekly and submit the data by noon on Tuesday of the following week. The information on these charts may change each week because of data that may have been submitted after the reporting deadline.

#### Hospital Admissions for Pneumonia or Influenza Surveillance (EMSystems)

Hospitals throughout Kansas submit information to the Kansas Hospital Association (KHA) through EM-Systems, a secure, online reporting system. One hundred and thirty-one (131) hospitals that have access to EMSystems are included in this surveillance program. KDHE has partnered with KHA to collect aggregate information on patients hospitalized for pneumonia or influenza.

The maps and graphs on pages 10-13 show the rate of hospital admissions for pneumonia or influenza reported by region and by hospital by week ending date. Each rate was calculated by dividing the number of patients admitted to the hospital with pneumonia or influenza by bed days. The denominator bed days was calculated by multiplying the number of staffed beds by seven.

#### **Hospital Situational Awareness (EMSystems)**

As part of a U.S. Department of Health and Human Services assessment project, hospitals throughout Kansas submit information to the Kansas Hospital Association (KHA) through EMSystems, a secure, online reporting system. Every Wednesday, 134 hospitals in Kansas provide information that describe the current situation of the hospital at the time of the report. The data represent a "snapshot" in time and do not take into account changes observed over a span of time.

The maps presented in this report on pages 14-16 are the responses to the following question: "Is the facility seeing an increasing demand for patient care services, such as scheduling, triage, assessment, treatment, admissions, transfer, and discharge?". Percentages were calculated by dividing the number of hospitals that responded "Yes" by the total number of hospitals that reported information and multiplying by 100.

#### Mortality Due to Pneumonia or Influenza

The Office of Vital Statistics within the Bureau of Public Health Informatics at KDHE receives and preserves vital records for events (births, deaths, marriages, and divorces) which occur in Kansas. The mortality data on page 17 reflects the number and percentage of persons whose primary or underlying cause of death was attributed to pneumonia and / or influenza.

#### Self-Reported Influenza-like Illness

The Behavioral Risk Factor Surveillance System (BRFSS), which is coordinated and partially funded by the Centers for Disease Control and Prevention, is the largest continuously conducted telephone survey

### **Technical Notes (continued)**

#### Self-Reported Influenza-like Illness (continued)

in the world. It is conducted in every state, the District of Columbia, and several United States territories. The first BRFSS survey in Kansas was conducted as a point-in-time survey in 1990, and Kansas has conducted the BRFSS survey annually since 1992.

Beginning in September 2009, the BRFSS questionnaire was revised to include questions to assess influenza-like illness among adult respondents and other members of the household. The graphs on pages 18 and 19 provide the percent of adults, children, and households reporting ILI.

#### School Absenteeism Surveillance

Data are collected by local health departments (LHDs) during each school week. LHDs report the number of schools with 10% or greater absenteeism and the total number of schools that submit data each week. LHDs submit data to KDHE by noon on Tuesday of the following week.

LHDs report county data in three categories: elementary school (i.e. K-5), middle school (i.e., 6-8), and high school (i.e., 9-12). The designated school category is based upon the majority of grades within the school; for instance, a school consisting of grade levels K-6 would be classified as an elementary school.

Percentages of school absenteeism by county shown on pages 20-26 may be unstable and changes over time should be interpreted with caution. "No report" classification indicates the LHD failed to report any data to KDHE. "No data" classification indicates that either the school(s) did not report any data to the LHD or there are no schools in the county for the specific school category.

#### Laboratory Testing at Kansas Department of Health and Environmental Laboratories (KHEL)

The information on pages 27 and 28 represents data reported to KDHE for the week ending the previous Saturday. Prior to September 1, 2009 persons with symptoms consistent with ILI were tested at KHEL. Beginning September 1, specimens were only tested if the person was hospitalized, had died and the cause of death was suspected to be influenza, or if the person was seen at an ILINet Clinic Site.

#### Descriptive Epidemiology for Laboratory-Confirmed H1N1 Cases at KHEL

The information on pages 29 and 30 represents data reported to KDHE for the week ending the previous Saturday. Only cases that were laboratory confirmed at KHEL are included.

### **Data Quality Indicators**

### Percentage of Sites Represented in the Current Week's Data for the Following Sections:

Outpatient Influenza-like Illness Surveillance — 59% (42 of 71 ILINet sites)

Hospital Admissions for Pneumonia or Influenza Surveillance (EMSystems) - 70% (93 of 132 hospitals)

Hospital Situational Awareness (EMSystems) - 73% (96 of 131 hospitals)

School Absenteeism Surveillance— 79% (83 of 105 Local Health Departments)

## **Appendix - Number and County Location of ILINet Clinic Sites**

| Allen        | 1 |
|--------------|---|
| Barton       | 2 |
| Brown        | 1 |
| Butler       | 1 |
| Cherokee     | 1 |
| Cheyenne     | 1 |
| Clark        | 1 |
| Cloud        | 1 |
| Cowley       | 1 |
| Crawford     | 1 |
| Dickinson    | 3 |
| Douglas      | 2 |
| Ellis        | 2 |
| Finney       | 1 |
| Ford         | 1 |
| Franklin     | 1 |
| Geary        | 2 |
| Grant        | 2 |
| Greenwood    | 1 |
| Harvey       | 1 |
| Jefferson    | 1 |
| Johnson      | 5 |
| Kiowa        | 1 |
| Labette      | 1 |
| Leavenworth  | 1 |
| Linn         | 1 |
| Lyon         | 2 |
| McPherson    | 1 |
| Meade        | 1 |
| Miami        | 1 |
| Montgomery   | 2 |
| Neosho       | 1 |
| Pottawatomie | 1 |
| Pratt        | 1 |
| Reno         | 2 |
| Riley        | 3 |
| Saline       | 2 |
| Sedgwick     | 6 |
| Seward       | 2 |
| Shawnee      | 3 |
| Sherman      | 1 |
| Wichita      | 1 |
| Wyandotte    | 6 |

### **Appendix - List of Hospitals Included in Hospital Surveillance Section for Current Report**

ALLEN COUNTY HOSPITAL IOLA

ATCHISON HOSPITAL

BOB WILSON MEM GRANT CO HOSP ULYSSES CENTRAL KANSAS MEDICAL CTR GREAT BEND CHEYENNE COUNTY HOSPITAL SAINT FRANCIS

CITIZENS MEDICAL CENTER COLBY

COFFEY COUNTY HOSPITAL BURLINGTON COFFEYVILLE REGIONAL MEDICAL CENTER

COMANCHE COUNTY HOSPITAL COLDWATER

COMMUNITY HOSPITAL ONAGA

COMMUNITY MEMORIAL HC MARYSVILLE

CUSHING MEMORIAL HOSPITAL

DECATUR COUNTY HOSPITAL OBERLIN EDWARDS CO. HOSP. AND HC CTR. KINSLEY

ELLINWOOD DISTRICT HOSPITAL

GALICHIA HEART HOSPITAL

GEARY COMMUNITY HOSPITAL JUNCTION CITY

GIRARD MEDICAL CENTER

GOODLAND REGIONAL MEDICAL CENTER GRAHAM COUNTY HOSPITAL HILL CITY

GREAT BEND REGIONAL HOSPITAL

GREENWOOD COUNTY HOSPITAL EUREKA HARPER COUNTY HOSP DIST NO 6 ANTHONY

HAYS MEDICAL CENTER

HERINGTON MUNICIPAL HOSPITAL HIAW ATHA COMMUNITY HOSPITAL HILLSBORO COMMUNITY HOSPITAL

HODGEMAN CO HEALTH CENTER JETMORE

HOLTON COMMUNITY HOSPITAL HORTON COMMUNITY HOSPITAL

JEFFERSON CO. MEM. HOSPITAL WINCHESTER

JEWELL COUNTY HOSPITAL MANKATO KEARNY COUNTY HOSPITAL LAKIN

KIOW A COUNTY MEM. HOSPITAL GREENSBURG

KIOWA DISTRICT HOSPITAL KIOWA

LABETTE HEALTH PARSONS

LANE COUNTY HOSPITAL DIGHTON LAWRENCE MEMORIAL HOSPITAL LINCOLN COUNTY HOSPITAL

LOGAN COUNTY HOSPITAL OAKLEY

MEADE DISTRICT HOSPITAL

MEDICINE LODGE MEMORIAL HOSPITAL

MEMORIAL HOSPITAL ABILENE MEMORIAL HOSPITAL MCPHERSON MERCY HOSPITAL MOUNDRIDGE

MIAMI COUNTY MEDICAL CENTER PAOLA MITCHELL COUNTY HOSPITAL BELOIT

MORRIS COUNTY HOSPITAL COUNCIL GROVE

MORTON COUNTY HEALTH SYSTEM ELKART

MT. CARMEL REG MEDICAL CTR PITTSBURG NEOSHO MEMORIAL RMC CHANUTE

NESS COUNTY HOSPITAL DIST. NO. 2

NEWTON MEDICAL CENTER

NINNESCAH VALLEY HEALTH SYS. KINGMAN

NORTON COUNTY HOSPITAL OLATHE MEDICAL CENTER

OSWEGO COMMUNITY HOSPITAL

OTTAWA COUNTY HEALTH CENTER MINNEAPOLIS

PHILLIPS COUNTY HOSPITAL PHILLIPSBURG

PRATT REGIONAL MEDICAL CENTER

PROMISE REGIONAL MEDICAL CENTER HUTCHINS

RANSOM MEMORIAL HOSPITAL OTTAWA
RAWLINS COUNTY HEALTH CENTER ATWOOD
REPUBLIC COUNTY HOSPITAL BELLEVILLE
ROOKS COUNTY HEALTH CENTER PLAINVILLE
RUSH COUNTY MEMORIAL HOSPITAL LACROSSE

RUSSELL REGIONAL HOSPITAL SABETHA COMMUNITY HOSPITAL

SAINT JOHN HOSPITAL

SAINT LUKE'S SOUTH HOSPITAL SALINA REGIONAL HEALTH CENTER SATANTA DISTRICT HOSPITAL AND LTCU

SCOTT COUNTY HOSPITAL

SEDAN CITY HOSPITAL

SHAWNEE MISSION MEDICAL CENTER

SHERIDAN COUNTY HEALTH COMPLEX HOXIE

SMITH COUNTY MEMORIAL HOSPITAL

SOUTH CENTRAL KANSAS RMC ARKANSAS CITY

SOUTHWEST MEDICAL CENTER LIBERAL

ST JOHNS MAUDE NORTON MEM HOSP-COLUMBUS

ST. CATHERINE HOSPITAL GARDEN CITY ST. FRANCIS HEALTH CENTER TOPEKA ST. LUKE HOSPITAL AND LIVING CTR MARION

STAFFORD DISTRICT HOSPITAL

STANTON HEALTH CARE FACILITY JOHNSON STEVENS COUNTY HOSPITAL HUGOTON STORMONT VAIL HEALTHCARE TOPEKA SUMNER COUNTY DIST. NO. 1 CALDWELL SUSAN B. ALLEN MEM. HOSPITAL EL DORADO TREGO CO. LEMKE MEM. HOSPITAL WAKEENEY

UNIVERSITY OF KANSAS HOSPITAL

VIA CHRISTI REGIONAL MED CTR WICHITA

WAMEGO CITY HOSPITAL

WASHINGTON COUNTY HOSPITAL
WESLEY MEDICAL CENTER WICHITA
WICHITA COUNTY HEALTH CENTER LEOTI